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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,022	12/15/2003	Steven W. Ping	SP01-P02	4164
7590	03/24/2005			
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			EXAMINER	
			ZIMMERMAN, JOHN J	
		ART UNIT	PAPER NUMBER	
		1775		

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,022

Applicant(s)

PING ET AL.

Examiner

John J. Zimmerman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/7/05 (election).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 1-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. 20050317.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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FIRST OFFICE ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, Species I (claims 1-16), in the response received February 7, 2005 is noted. [See attached interview summary sheet regarding the election.] The claims to the non-elected inventions have been canceled.

Claim Objections

2. Claims 1-16 are objected to because of the following informalities: The compositions of the aluminum alloys in the claims should reflect that weight percent is used (e.g. the alloy composition in claim 1, line 3, should be change to "between about 1.8 wt.% and 10.0 wt.% Si"). Appropriate correction is requested.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2 and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Brasse (U.S. Patent 3,732,083).

5. Brasse discloses an aluminum strip containing 4 % silicon roll bonded to a steel strip (e.g. see Example in column 5). Although Brasse may not disclose that the composite strip can be used as a "transition insert" as recited in applicant's preamble, the strip of Brasse would certainly be capable of such a use since it has all the structure required of such an insert. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

6. Claims 1-3 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Slater (U.S. Patent 3,300,838).

7. Slater discloses an aluminum strip containing 2-8 % silicon roll bonded to a steel strip (e.g. see claim 1). The endpoints of Slater's aluminum alloy silicon content fall directly in applicant's claimed ranges. Although Slater may not disclose that the composite strip can be used as a "transition insert" as recited in applicant's preamble, the strip of Slater would certainly be capable of such a use since it has all the structure required of such an insert. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone.

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See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

8. Claims 1-4, 6, 11-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Lynch (U.S. Patent 2,539,248).

9. Lynch discloses an aluminum strip containing 2.5 % silicon and 4% silicon roll bonded to a steel strip and having a silver intermediate layer of a thickness between 0.000025" to 0.001" (e.g. see claims 5-7). Although Lynch may not disclose that the composite strip can be used as a "transition insert" as recited in applicant's preamble, the strip of Lynch would certainly be capable of such a use since it has all the structure required of such an insert. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

10. Claims 1-4 and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ramos (WO 96/11800).

11. Ramos discloses an aluminum strip containing 1-6 % silicon roll bonded to a steel strip (e.g. see claims 1-7). A nickel interlayer may be used (e.g. see Figure 1; page 3, lines 22-27).

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Although Ramos may not disclose that the composite strip can be used as a "transition insert" as recited in applicant's preamble, the strip of Ramos would certainly be capable of such a use since it has all the structure required of such an insert. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). The range of silicon in the applicant's claims is disclosed with sufficient specificity to anticipate the claims since the upper endpoint of the silicon range of Ramos falls directly within applicants' broad silicon range. In addition the narrower ranges of silicon in the applicant's dependent claims (e.g. claims 2 and 3) are entirely encompassed by the silicon range of Ramos and the silicon range of Ramos is small enough that each of the points 2%, 3% and 5% can be easily envisaged by one of ordinary skill in the art. See MPEP 2131.03.

12. Claims 1-4 and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Wyatt (U.S. Patent 2,747,256).

13. Wyatt discloses an aluminum strip containing up to 4 % silicon roll bonded to a steel strip (e.g. see column 1, lines 48-56; claims 1-2). A nickel interlayer may be used (e.g. see column 2, lines 3-6). Although Wyatt may not disclose that the composite strip can be used as a "transition insert" as recited in applicant's preamble, the strip of Wyatt would certainly be capable of such a use since it has all the structure required of such an insert. A preamble is generally not accorded

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any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). The range of silicon in the applicant's claims is disclosed with sufficient specificity to anticipate the claims since the upper endpoint of the silicon range of Wyatt falls directly within applicants' broad silicon range. In addition the narrower ranges of silicon in the applicant's dependent claims (e.g. claims 2 and 3) are entirely encompassed by the silicon range of Wyatt and the silicon range of Wyatt is small enough that each of the points 2% and 3% can be easily envisaged by one of ordinary skill in the art. See MPEP 2131.03.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 6 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Ramos (WO 96/11800).

16. Ramos is discussed in detail above. Ramos may differ from claims 6 and 16 in that Ramos may not disclose the thickness of the nickel interlayer used between the aluminum and

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steel members. It would have been obvious to one of ordinary skill in the art at the time the invention was made, however, to optimize the thickness of the nickel interlayer of Ramos to obtain best adhesion between the aluminum and steel members of Ramos because that is the purpose of the nickel layer.

17. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch (U.S. Patent 2,539,248) in view of Szecket (U.S. Patent 4,842,182).

18. Lynch discloses an aluminum strip containing 2.5 % silicon and 4% silicon roll bonded to a steel strip and having a silver intermediate layer of a thickness between 0.000025" to 0.001" (e.g. see claims 5-7). Although Lynch may not disclose that the composite strip can be used as a "transition insert" as recited in applicant's preamble, the strip of Lynch would certainly be capable of such a use since it has all the structure required of such an insert. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Lynch may differ from some of the claims in that Lynch may use a silver interlayer instead of a chromium interlayer between the aluminum member and the steel member. Szecket, however, discloses that it is known in the prior art that either silver or chromium interlayers can be used between metallurgically bonded aluminum and steel composites in order to prevent the formation of brittle intermetallics that inhibit good

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metallurgical bonding, (see column 2, lines 56-68). In view of Szecket, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use either silver interlayers or chromium interlayers for the interlayers of Lynch because Szecket discloses that chromium interlayers are understood in the prior art to provide good metallurgical bonding as an alternative to silver interlayers.

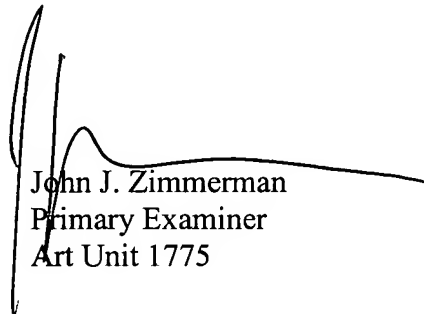
Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additionally cited references serve to further establish the level of ordinary skill in the art at the time the invention was made.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (571) 272-1547. The examiner can normally be reached on 8:30am-5:00pm, M-F. Supervisor Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John J. Zimmerman
Primary Examiner
Art Unit 1775

jjz
March 17, 2005